Status of the Claims

Claims 1 - 36 are now pending in the present application.

Claims Rejected (Apparently under 35 U.S.C. § 103(a))

The Examiner has rejected Claims 1, 2, 4-8, 10-27, 29-34, and 36 under 35 U.S.C. § 102(e) [*sic*] as being anticipated [*sic*] by U.S. Patent No. 6,128,279 (O'Neil et al., hereinafter referred to as "O'Neil") in view of U.S. Patent No. 6,438,652 (Jordan et al., hereinafter referred to as "Jordan"). The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to include the communication of a message, to indicate that a certain server is no longer the intake server, as taught by Jordan in the system of O'Neil. The Examiner asserts that the motivation for doing so is to enable a server in use to communicate with a system that it is unavailable for further requests, to thus provide more efficiency in the system, by effectively disallowing overburdening the server. The Examiner further notes that both the present application and the inventions discussed in the cited art are directed to the same field of endeavor, namely the load balancing of servers. Applicants respectfully disagree for the reasons discussed below.

In the interest of reducing the complexity of the issues for the Examiner to consider in this response, the following discussion focuses on independent Claims 1, 19, 24, and 36. The patentability of each dependent claim is not necessarily separately addressed in detail. However, applicants' decision not to discuss the differences between the cited art and each dependent claim should not be considered as an admission that applicants concur with the Examiner's conclusion that these dependent claims are not patentable over the cited references. Similarly, applicants' decision not to discuss differences between the prior art and every claim element, or every comment made by the Examiner, should not be considered as an admission that applicants concur with the Examiner's interpretation and assertions regarding those claims. Indeed, applicants believe that all of the dependent claims patentably distinguish over the references cited. However, a specific traverse of the rejection of each dependent claim is not required, since dependent claims are patentable for at least the same reasons as the independent claims from which the dependent claims ultimately depend.

Discussion of the Rejection of Independent Claim 1

Significant differences exist between applicants' Claim 1 and the cited combination of O'Neil and Jordan because the combined references do not appear to teach or suggest all of the recitation of applicants'

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Claim 1; namely, that an *intake* message is provided, and that the intake message *identifies* a second resource as the intake.

Step (d) of applicants' Claim 1 recites, "designating the second resource as the new intake and providing an intake message from the first resource to the plurality of resources in the cluster identifying the second resource as the intake." The Examiner has asserted that although O'Neil does not specifically teach that the first intake provides a message to the cluster identifying the second resource as an intake, Jordan teaches the communication of a server, indicating that it is no longer available to process requests, thus requesting the routing to another server, which constitutes the announcement of intake designation to a second server. The Examiner cites column 4, lines 15-27 of Jordan that is reproduced below:

> *In another example, an overloaded cooperating cache server can identify a less loaded cooperating cache server; and communicate a shift request and a copy of the cached object to the less loaded cooperating cache server (which then caches the object), so that subsequent requests for the object will not be forwarded.* **Alternatively, an overloaded cooperating cache server can communicate the shift request to the less loaded cooperating cache server, which then obtains a copy of the object from an originating object server, in response to the shift request.** <u>In yet another alternative, the owning cache server can multicast the shift request message to one or more of the other cooperating cache servers so that subsequent forward requests will be shifted.</u> (Emphasis added, Jordan, column 4, lines 14-27.)

Applicants' step (d) recites: (1) providing an *intake* message; and, (2) that the intake message *identifies* the second resource as the intake. Even if Jordan discloses providing a message in the at least three embodiments in the Examiner's citation, as denoted by the italicized, bold font, and underlined portions of the quoted passage, respectively, Jordan does not provide *an intake message*. Instead, Jordan provides a *shift request* message. As disclosed in the underlined third embodiment, the shift request message does not directly *identify* a cooperating cache server from the cooperating cache servers as the intake. Instead, Jordan discloses that the shift request message functions to the effect that subsequent forward requests will be shifted. But shifted to where? To what server? While Jordan discloses that a shift request message is a message that has the effect of causing some or all forwarded requests to shift to a less loaded cache server (Jordan, column 3, lines 23-24), the less loaded cache server is not identified. More importantly, Jordan does not teach or suggest that the shift request message includes any *identification specifically* of which less loaded cache server may provide a service. Jordan's message is simply a request and not a direct designation of a specific resource, in contrast to the recitation in applicants' claim. Instead, it appears to applicants that Jordan teaches that tables, such as load table 102 that includes the load condition

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1   of each cache server, are maintained by the load monitor 120, so that overloaded and underloaded servers

2   can be identified (Jordan, column 6, lines 6-13) and caching table 101 is utilized for notification purposes.

3   However, publishing overloaded and underloaded servers in a table is not equivalent to broadcasting an

4   intake message identifying the second resource as the intake for future client requests. In applicants'

5   recitation, the identification must be communicated to the plurality of resources in the cluster, while in

6   Jordan's first and second disclosed embodiments, there is no teaching of any communication of the caching

7   table to all of the cache servers.

8   Accordingly, the rejection of independent Claim 1 over O'Neil in view of Jordan should be

9   withdrawn, based on the reasons given above, because O'Neil and Jordan do not teach or suggest all of the

10 elements of independent Claim 1.

11   Claims 2-18 ultimately depend from independent Claim 1. Because dependent claims inherently

12 include all of the steps or elements of the independent claims from which the dependent claims ultimately

13 depend, dependent Claims 2-18 are patentable for at least the same reasons discussed above with regard to

14 independent Claim 1. Therefore, the rejection of dependent Claims 2-18 under 35 U.S.C. § 103(a) over

15 O'Neil and in view of Jordan should be withdrawn.

16 Discussion of the Rejection of Independent Claim 19

17   Independent Claim 19 is directed to a system for distributing a processing load in a cluster. Clearly,

18 for the same reasons already noted above in regard to independent Claim 1, Claim 19 also distinguishes

19 over O'Neil and Jordan, because O'Neil and Jordan do not teach or suggest providing an *intake* message

20 from a first resource to a plurality of resources in the cluster, for *identifying* the second resource as the

21 intake.

22   Accordingly, the rejection of independent Claim 19 over O'Neil and further in view of Jordan

23 should be withdrawn for the reasons discussed above. Because dependent claims include all of the elements

24 of the independent claim from which the dependent claims ultimately depend and because O'Neil and

25 Jordan do not teach or suggest all of the elements of independent Claim 19, the rejection of dependent

26 Claims 20-23, under 35 U.S.C. § 103(a) over O'Neil and Jordan should also be withdrawn, for at least the

27 same reasons as the rejection of Claim 19.

28 Discussion of the Rejection of Independent Claim 24

29   Independent Claim 24 is directed to a method of distributing a processing load among a cluster of

30 nodes, each node providing at least one of a plurality of different types of services. Clearly, for the same

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reasons already noted above in regard to independent Claim 1, this claim also distinguishes over O'Neil and Jordan, because O'Neil and Jordan do not teach or suggest providing an *intake* message from the first node designated as the intake for the first instance, to the nodes in the cluster *identifying* the second instance as the new intake for the first type of service.
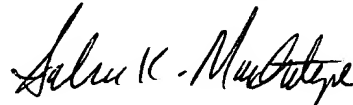
Accordingly, the rejection of independent Claim 24 under 35 U.S.C. § 103(a) over O'Neil and Jordan should be withdrawn based on the reasons discussed above. Because dependent claims include all of the elements of the independent claim from which the dependent claims ultimately depend, and because O'Neil and Jordan do not teach or suggest all of the elements of independent Claim 24, the rejection of dependent Claims 25-35, under 35 U.S.C. § 103(a) over O'Neil should also be withdrawn, for at least the same reasons as the rejection of Claim 24.

Discussion of the Rejection of Independent Claim 36

Independent Claim 36 is directed to a system for distributing a processing load in a cluster of resources. But O'Neil and Jordan fail to teach or suggest providing an *intake* message from a first resource to a plurality of resources in a cluster *identifying* a second resource as an intake. For the same reasons already noted above in regard to independent Claim 1, this claim also distinguishes over O'Neil and Jordan. Accordingly, the rejection of independent Claim 36 under 35 U.S.C. § 103(a) over O'Neil and Jordan should be withdrawn.

In view of the Remarks set forth above, it will be apparent that the claims in this application define a novel and non-obvious invention, and that the application is in condition for allowance and should be passed to issue without further delay. Should any further questions remain, the Examiner is invited to telephone applicants' attorney at the number listed below.

Respectfully submitted,

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SKM/RMA:elm:cai

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on December 6, 2005

Date: December 6, 2005

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